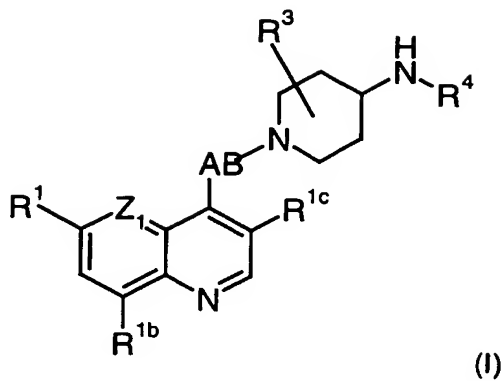


What is claimed is:

1. A compound according to formula (I):



wherein:

Z_1 is N or CR^{1a} ;

10 R^1 and R^{1a} are independently selected from H, nitro, halogen, (C_{1-3}) alkylthio, (C_{1-3}) alkyl, and (C_{1-3}) alkoxy optionally substituted by (C_{1-3}) alkoxy; or R^1 and R^{1a} are joined together to form ethylenedioxy;

R^{1b} is H or halogen;

15 with the proviso that when Z_1 is N, then R^{1b} is H and when Z_1 is CR^{1a} then R^1 is not H;

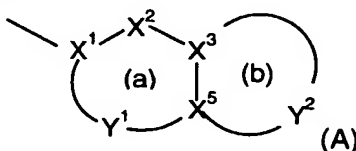
R^{1c} is halogen;

20 AB is CHR^6-CO or CHR^6-CH_2 ;

R^6 is H, NH_2 , $-CH_2OH$, or hydroxy;

R³ is up to two substituents selected from H, halogen, (C₁₋₃)alkyl, hydroxy(C₁₋₃)alkyl, CONH₂, COOH, -CH₂CONH₂, -CH₂COOH, -CONHCH₃, and hydroxy in the 3-position optionally substituted by (C₁₋₃)alkyl;

- 5 R⁴ is a group -U-R⁵ where R⁵ is a substituted or unsubstituted bicyclic carbocyclic or heterocyclic ring system (A):



containing up to four heteroatoms in each ring in which
at least one of rings (a) and (b) is aromatic;

- 10 X¹ is C or N when part of an aromatic ring or CR¹⁴ when part of a non aromatic ring;
X² is N, NR¹³, O, S(O)_x, CO or CR¹⁴ when part of an aromatic or non-aromatic ring or may in addition be CR¹⁴R¹⁵ when part of a non aromatic ring;
X³ and X⁵ are independently N or C;
- 15 Y¹ is a 0 to 4 atom linker group each atom of which is independently selected from N, NR¹³, O, S(O)_x, CO and CR¹⁴ when part of an aromatic or non-aromatic ring or may additionally be CR¹⁴R¹⁵ when part of a non aromatic ring,
Y² is a 2 to 6 atom linker group, each atom of Y² being independently selected from N, NR¹³, O, S(O)_x, CO and CR¹⁴ when part of an aromatic or non-
- 20 aromatic ring or may additionally be CR¹⁴R¹⁵ when part of a non aromatic ring;

each of R¹⁴ and R¹⁵ is independently selected from H; (C₁₋₄)alkylthio; halo; (C₁₋₄)alkyl; (C₂₋₄)alkenyl; hydroxy; hydroxy(C₁₋₄)alkyl; mercapto(C₁₋₄)alkyl; (C₁₋₄)alkoxy; trifluoromethoxy; nitro; cyano; carboxy; amino or aminocarbonyl

- 25 optionally substituted by (C₁₋₄)alkyl;
each R¹³ is independently H; trifluoromethyl; (C₁₋₄)alkyl optionally substituted by hydroxy, carboxy, (C₁₋₄)alkoxy, (C₁₋₆)alkylthio, halo or trifluoromethyl; (C₂₋

4)alkenyl; or aminocarbonyl wherein the amino group is optionally substituted (C₁-
4)alkyl;

each x is independently 0, 1 or 2; and

U is CO, SO₂ or CH₂; or a pharmaceutically acceptable salt thereof.

5

2. A compound according to claim 1 wherein R¹ is F, Cl, OCH₃, methyl, or SCH₃.

3. A compound according to claim 1 R^{1a} is H, OCH₃, OCH₂CH₂OCH₃.

10 4. A compound according to claim 1 wherein R^{1b} is H or F.

5. A compound according to claim 1 wherein R^{1c} is Cl or F.

6. A compound according to claim 1 wherein R³ is H, OH, OCH₃, or CH₂OH.

15

7. A compound according to claim 1 wherein R⁶ is H or OH.

8. A compound according to claim 1 wherein the group -U- is -CH₂-.

20 9. A compound according to claim 1 wherein R⁵ is:

benzo[1,2,5]thiadiazol-5-yl;

4H-benzo[1,4] thiazin-3-one-6-yl;

2,3-dihydro-benzo[1,4]dioxin-6-yl;

benzo[1,2,3]thiadiazol-5-yl;

25 3-oxo-3,4-dihydro-2H-benzo[1,4]oxazin-6-yl;

7-fluoro-3-oxo-3,4-dihydro-2H-benzo[1,4] oxazin-6-yl;

2-oxo-2,3-dihydro-1H-pyrido[2,3-b][1,4]thiazin-7-yl;

2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-yl;

3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-yl;

30 [1,2,3]thiadiazolo[5,4-b]pyridin-6-yl;

3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl;

7-chloro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl; or

7-fluoro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl.

10. A compound according to claim 1 which is:

6-({1-[(Racemic)-2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-2-hydroxy-ethyl]-piperidin-4-ylamino}-methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one

5 Dihydrochloride;

(Racemic)-1-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-2-{4-[(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-piperidin-1-yl}-ethanol Dihydrochloride;

{1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-piperidin-4-yl}-(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amine Dihydrochloride;

10 {1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-piperidin-4-yl}-(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amine Dihydrochloride;

6-(((cis)-1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one Dihydrochloride Enantiomer 1;

15 6-(((cis)-1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one Dihydrochloride Enantiomer 2;

6-(((cis)-1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one Dihydrochloride Enantiomer

20 1;

6-(((cis)-1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one Dihydrochloride Enantiomer 2;

25 6-(((cis)-1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one Dihydrochloride Enantiomer 1;

6-(((cis)-1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one Dihydrochloride Enantiomer 2;

30 6-(((cis)-1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one Dihydrochloride Enantiomer 1;

35 6-(((cis)-1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino)-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one Dihydrochloride Enantiomer 2;

- 6-({1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]piperidin-4-yl amino)methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Trihydrochloride;
- 6-({1-[2-(3-chloro-6-methoxyquinolin-4-yl)ethyl]piperidin-4-yl amino)methyl)-4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one Trihydrochloride;
- 5 6-({1-[2-(3-Chloro-6-methoxynaphthyridin-4-yl)ethyl]piperidin-4-yl amino)methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Dihydrochloride;
- 6-({1-[2-(3-chloro-6-methoxynaphthyridin-4-yl)ethyl]piperidin-4-yl amino)methyl)-4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one Dihydrochloride,;
- 10 6-(((trans)-1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]3-hydroxypiperidin-4-yl amino)methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Trihydrochloride enantiomer 2;
- 6-(((trans)-1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]3-hydroxypiperidin-4-yl amino)methyl)-4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one Trihydrochloride enantiomer 2;
- 6-(trans)-1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]3-hydroxypiperidin-4-yl amino)methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one_Trihydrochloride enantiomer 1;
- 15 6-(trans)-1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]3-hydroxypiperidin-4-yl amino)methyl)-4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one Trihydrochloride enantiomer 1;
- 6-({1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]4-hydroxymethylpiperidin-4-ylamino)methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Dihydrochloride;
- 6-({1-[2-(3-Chloro-6-fluoro-5-methoxy-quinolin-4-yl)-ethyl]-piperidin-4-ylamino}-methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Dihydrochloride;
- 20 6-({1-[2-(3-Chloro-6-methyl-[1,5]naphthyridin-4-yl)-ethyl]-piperidin-4-ylamino}-methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Dihydrochloride;
- {1-[2-(3-Chloro-6-methyl-[1,5]naphthyridin-4-yl)-ethyl]-piperidin-4-yl)-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amine Dihydrochloride;
- 25 6-({1-[2-(3-Chloro-6-fluoro-quinolin-4-yl)-ethyl]-piperidin-4-ylamino}-methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Dihydrochloride;
- {1-[2-(3-Chloro-6-fluoro-quinolin-4-yl)-ethyl]-piperidin-4-yl)-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amine Dihydrochloride;
- 6-({1-[2-(3, 6-Dichloro-quinolin-4-yl)-ethyl]-piperidin-4-ylamino}-methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Dihydrochloride;
- 30 {1-[2-(3,6-Dichloro-quinolin-4-yl)-ethyl]-piperidin-4-yl)-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amine Dihydrochloride;
- (cis)-1-[2-(3-Chloro-6-methoxy- [1,5]naphthyridin-4-yl)-ethyl]-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amino]-piperidin-3-ol Dihydrochloride
- 35 Enantiomer 1;

(cis)-1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-4-[(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-piperidin-3-ol Dihydrochloride
Enantiomer 2;

6-({1-[2-(3-Fluoro-6-methoxyquinolin-4-yl)ethyl]piperidin-4-yl amino)methyl)-
5 4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one dihydrochloride;

{1-[2-(3-Fluoro-6-methoxy-quinolin-4-yl)-ethyl]-piperidin-4-yl}-(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amine dihydrochloride;

cis-4-[(2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-1-[2-(3-
10 fluoro-6-methoxy-quinolin-4-yl)-ethyl]-piperidin-3-ol Enantiomer 2 dihydrochloride;

cis-4-[(2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-1-[2-(3-
fluoro-6-methoxy-quinolin-4-yl)-ethyl]-piperidin-3-ol dihydrochloride dihydrochloride
Enantiomer 1;

{1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-2-hydroxyethyl]-piperidin-
15 4-yl}-(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amine Dihydrochloride
Enantiomer 1;

6-({1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-2-hydroxy-ethyl]-
piperidin-4-ylamino}-methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Dihydrochloride
Enantiomer 1;

6-({1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-2-hydroxy-ethyl]-
20 piperidin-4-ylamino}-methyl)-4*H*-pyrido[3,2-*b*][1,4]thiazin-3-one Dihydrochloride
Enantiomer 2;

{6-(trans)-1-[2-(3-Chloro-6-methoxyquinolin-4-yl)ethyl]-3-hydroxypiperidin-4-
yl}-(2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)amine Enantiomer 2;

(trans)-6-({1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-3-
25 hydroxy-piperidin-4-ylamino}-methyl)-4*H*-pyrido[3,2-*b*][1,4]-thiazin-3-one
Dihydrochloride Enantiomer 2;

trans-6-({1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-
piperidin-4-ylamino}-methyl)-4*H*-pyrido[3,2-*b*][1,4] oxazin-3-one Trihydrochloride
30 Enantiomer 2;

trans-6-({1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-
piperidin-4-ylamino}-methyl)-4*H*-pyrido[3,2-*b*][1,4] thiazin-3-one dihydrochloride
Enantiomer 1;

6-(((3*R*,4*r*,5*S*)-1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-3,5-dihydroxy-
35 piperidin-4-ylamino))-methyl)-4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one dihydrochloride;

- 6-({1-[2-(3-Fluoro-6-methoxyquinolin-4-yl)ethyl]piperidin-4-yl amino)methyl)-
4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one dihydrochloride;
- {1-[2-(3-Bromo-6-methoxy-quinolin-4-yl)-ethyl]-piperidin-4-yl}-(2,3-dihydro-
[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amine Dihydrochloride;
- 5 cis-1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-4-[(2,3-dihydro-
[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amino]-piperidin-3-ol Dihydrochloride
Enantiomer 1;
- cis-1-[2-(3-Chloro-6-methoxy-quinolin-4-yl)-ethyl]-4-[(2,3-dihydro-
[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amino]-piperidin-3-ol Dihydrochloride
10 Enantiomer 2;
- 1-{2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl}-*N*-(2,3-
dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-4-piperidinamine dihydrochloride;
- 7-{{{1-[2-(3,8-Difluoro-6-(methoxy)-4-quinolinyl]ethyl)-4-
piperidinyl]amino)methyl}-1*H*-pyrido[2,3-*b*][1,4]thiazin-2(3*H*)-one dihydrochloride;
- 15 6-{{{1-[2-(3,8-Difluoro-6-(methoxy)-4-quinolinyl]ethyl)-4-
piperidinyl]amino)methyl}-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dinarydrochloride;
- 6-{{{1-[2-(3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl)-4-
piperidinyl]amino)methyl}-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride;
- 1-{2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl}-*N*-([1,3]dioxolo[4,5-
20 *c*]pyridin-6-ylmethyl)-4-piperidinamine dihydrochloride;
- {1-[2-(9-Chloro-2,3-dihydro-[1,4]dioxino[2,3-*f*]quinolin-10-yl)-ethyl]-piperidin-
4-yl}-(2,3-dihydro-[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-amine dihydrochloride;
- N*-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-1-{2-[3-fluoro-6-
(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinamine dihydrochloride;
- 25 *N*-(2,3-Dihydro-1*H*-pyrido[3,4-*b*][1,4]thiazin-7-ylmethyl)-1-{2-[3-fluoro-6-
(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinamine dihydrochloride;
- 6-{{{1-[2-(3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-
piperidinyl]amino)methyl}-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;
- 7-{{{1-[2-(3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-
30 piperidinyl]amino)methyl}-1*H*-pyrido[2,3-*b*][1,4]thiazin-2(3*H*)-one dihydrochloride;
- 3-{{{1-[2-(3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-
piperidinyl]amino)methyl}-8-hydroxy-1(2*H*)-isoquinolinone dihydrochloride;

- 3-{[(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinyl)amino]methyl}-5*H*-pyridazino[3,4-*b*][1,4]thiazin-6(7*H*)-one dihydrochloride;
- 6-{[(1-{2-[3-Fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinyl)amino]methyl}-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride;
- 5 *N*-(2,3-Dihydro[1,4]oxathiino[2,3-*c*]pyridin-7-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinamine dihydrochloride;
- 1-{2-[3-Fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-*N*-([1,3]oxathiolo[5,4-*c*]pyridin-6-ylmethyl)-4-piperidinamine dihydrochloride;
- 10 7-Fluoro-*N*-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide dihydrochloride;
- N*-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinyl)-2-oxo-2,3-dihydro-1*H*-pyrido[2,3-*b*][1,4]thiazine-7-carboxamide dihydrochloride;
- 15 *N*-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide;
- N*-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]oxazine-6-carboxamide;
- (3*R*,4*S*)-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinol dihydrochloride
- 20 Enantiomer 1;
- 6-{[(3*R*,4*S*)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl}-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride;
- 25 6-{[(3*R*,4*S*)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl}-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;
- (3*R*,4*S*)-4-[(2,3-dihydro[1,4]dioxino[2,3-*b*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinol dihydrochloride;
- 30 6-{[(3*S*,4*R*)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl}-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer 2;
- N*-((3*S*,4*R*)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-
- 35 carboxamide hydrochloride Enantiomer 2;

7-[[[(3*R*,4*S*)-1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl]-1*H*-pyrido[2,3-*b*][1,4]thiazin-2(3*H*)-one dihydrochloride Enantiomer 1;

5 6-[[[(3*R*,4*S*)-1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer 1;

(3*R*,4*S*)-1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol dihydrochloride dihydrochloride Enantiomer 1;

10 6-[[[(3*R*,4*S*)-1-{2-[3,8-difluoro-6-(methoxy)-4-quinoliny]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;

N[(4-fluoro-1*H*-benzimidazol-2-yl)methyl]-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinamine;

15 1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-*N*-(1,5,6,7-tetrahydro-1,8-naphthyridin-2-ylmethyl)-4-piperidinamine dihydrochloride;

N-(3-cinnolinylmethyl)-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinamine dihydrochloride;

N-(2,1,3-benzothiadiazol-5-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinamine dihydrochloride;

20 1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-*N*-([1,3]thiazolo[5,4-*b*]pyridin-6-ylmethyl)-4-piperidinamine dihydrochloride;

N-(3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazin-6-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinamine dihydrochloride;

25 *N*-(1,3-benzothiazol-5-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinamine dihydrochloride;

1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-*N*-([1,2,3]thiadiazolo[5,4-*b*]pyridin-6-ylmethyl)-4-piperidinamine dihydrochloride;

7-[[[(1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinyl)amino]methyl]-1*H*-pyrido[2,3-*b*][1,4]thiazin-2(3*H*)-one dihydrochloride;

30 *N*-(2,3-dihydro[1,4]dioxino[2,3-*b*]pyridin-7-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinamine dihydrochloride;

N-(2,3-dihydro[1,4]oxathiino[2,3-*c*]pyridin-7-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinamine dihydrochloride;

- 4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-*N*-methyl-4-piperidinecarboxamide dihydrochloride;
- 4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinecarboxamide dihydrochloride;
- 5 4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-*N*-methyl-4-piperidinecarboxamide dihydrochloride;
- 4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinecarboxamide dihydrochloride;
- 10 1-{2-[3-chloro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-4-piperidinecarboxamide dihydrochloride;
- (4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidiny]methanol dihydrochloride;
- 15 *N*-[1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-(hydroxymethyl)-4-piperidiny]-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide hydrochloride;
- N*-(1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidiny)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]oxazine-6-carboxamide hydrochloride;
- 20 *N*-(1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidiny)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide hydrochloride;
- 7-[[[(3*R*,4*S*)-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-3-hydroxy-4-piperidiny]amino]methyl]-1*H*-pyrido[2,3-*b*][1,4]thiazin-2(3*H*)-one dihydrochloride Enantiomer 1;
- 25 6-[[[(3*R*,4*S*)-1-{2-[3-chloro-8-fluoro-6-(methoxy)-4-quinoliny]ethyl}-3-hydroxy-4-piperidiny]amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer 1;
- (3*R*,4*S*)-1-{2-[3-chloro-8-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol dihydrochloride;
- 30 2-{4-[(2,3-Dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidiny]-1-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethanol Dihydrochloride Hydrate Enantiomer 1;
- 2-{4-[(2,3-Dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidiny]-1-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethanol Dihydrochloride Hydrate

Enantiomer 2;

racemic, cis 4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinyl)methanol dihydrochloride;

5 *racemic, cis*-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinecarboxylic acid dihydrochloride;

racemic, cis-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinecarboxamide
10 dihydrochloride;

1-{2-[3-chloro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-*N*-[(6-oxido-2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-yl)methyl]-4-piperidinamine dihydrochloride;

6-[[1-{2-[3-chloro-6-(methoxy)-1,5-naphthyridin-4-yl]-3-hydroxypropyl}-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride;

15 6-[[1-{2-(3,6-difluoro-4-quinolinyl)ethyl}-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride;

1-[2-(3,6-difluoro-4-quinolinyl)ethyl]-*N*-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-4-piperidinamine hydrochloride dihydrochloride;

6-[[1-{2-(3,6-difluoro-4-quinolinyl)ethyl}-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;

6-[[1-{2-[3-chloro-6-fluoro-5-(methoxy)-4-quinolinyl]-1-methylethyl}-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;

1-{2-[3-chloro-6-fluoro-5-(methoxy)-4-quinolinyl]ethyl}-*N*-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-4-piperidinamine dihydrochloride;

25 1-[2-(6-chloro-3-fluoro-4-quinolinyl)ethyl]-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-*N*-methyl-4-piperidinecarboxamide dihydrochloride;

2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidinyl}-1-[3-fluoro-6-(methoxy)-4-quinolinyl]ethanol dihydrochloride Enantiomer 2;

6-[[*trans*-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride
30 Enantiomer E2;

6-[[*trans*-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride
Enantiomer E2;

trans-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinol dihydrochloride
Enantiomer E2;

5 6-[[*trans*-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-3-hydroxy-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one-dihydrochloride
Enantiomer E2;

trans-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-4-quinoliny]ethyl}-3-piperidinol dihydrochloride;

10 *N-trans*-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide
hydrochloride Enantiomer E2;

N-trans-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-piperidinyl)-2,3-dihydro[1,4]dioxino[2,3-*c*]pyridine-7-carboxamide hydrochloride
Enantiomer E2;

15 *racemic, trans*-6-[[1-(2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-hydroxy-3-methyl-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride;

20 *Trans*-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-methyl-3-piperidinol
dihydrochloride;

6-[[*trans*-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-methyl-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one
dihydrochloride Enantiomer E1;

25 *Trans*-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-3-piperidinol
dihydrochloride;

6-[[*trans*-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-4-methyl-4-piperidinyl)amino]methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one
dihydrochloride Enantiomer E2;

30 *Trans*-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-3-piperidinol
dihydrochloride;

N-(3,4-dihydro-2*H*-pyrano[2,3-*c*]pyridin-6-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinamine dihydrochloride;

- {[(1-{2-[3-Fluoro-6-(methoxy-5-naphthyridin-4-yl)ethyl]-4-piperidinyl)amino)methyl]-3,4-dihydro-1,8-naphthyridin-2-(1H)-one;
 7-{[(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-piperidinyl)amino)methyl]-2,3-dihydro-1,5-benzothiazepin-4(5H)-one;
 5 *trans*-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinol dihydrochloride
 Enantiomer E1;
 6-{[(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-hydroxy-4-piperidinyl)amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;
 10 *trans*-6-{[(1-{2-[3-fluoro-6-(methoxy)-4-quinolinyl]ethyl)-3-hydroxy-4-piperidinyl)amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one Enantiomer E1;
trans-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-4-quinolinyl]ethyl}-3-piperidinol dihydrochloride;
trans-6-{[(1-{2-[3-fluoro-6-(methoxy)-4-quinolinyl]ethyl)-3-hydroxy-4-piperidinyl)amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;
 15 *trans*-*N*-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-hydroxy-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide
 hydrochloride Enantiomer E1;
trans-*N*-((3*R*,4*R*)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-hydroxy-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]oxazine-6-carboxamide Isomer E1 hydrochloride;
 20 *trans*-*N*-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-hydroxy-4-piperidinyl)-2,3-dihydro[1,4]dioxino[2,3-*c*]pyridine-7-carboxamide Isomer E1
 hydrochloride;
 25 6-{[(*trans*-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-3-hydroxy-4-piperidinyl)amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one Enantiomer E1;
 6-{[(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-methyl-4-piperidinyl)amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride;
 6-{[(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-methyl-4-piperidinyl)amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride;
 30 *N*-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-4-piperidinamine dihydrochloride;
N-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl)-4-methyl-4-piperidinyl)-2,3-dihydro-1,4-benzodioxin-6-sulfonamide;

cis-6-(((1-(2-[3-chloro-8-fluoro-6-(methoxy)-4-quinolinyl]ethyl)-3-fluoro-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer 1;

5 *cis*-1-(2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl)-*N*-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-3-fluoro-4-piperidinamine dihydrochloride Enantiomer 1;

cis-1-(2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl)-*N*-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-3-fluoro-4-piperidinamine dihydrochloride Enantiomer 2;

10 *cis*-6-(((1-(2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl)-3-fluoro-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride, Enantiomer 1;

cis-6-(((1-(2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl)-3-fluoro-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride, Enantiomer 2;

cis-1-(2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl)-*N*-(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)-3-fluoro-4-piperidinamine dihydrochloride, Enantiomer 1;

cis-1-(2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl)-*N*-(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)-3-fluoro-4-piperidinamine dihydrochloride, Enantiomer 2;

20 *cis*-6-(((1-(2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl)-3-fluoro-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride, Enantiomer 1;

cis-6-(((1-(2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl)-3-fluoro-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride, Enantiomer 2;

cis-N-(1-(2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl)-3-fluoro-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide hydrochloride Enantiomer 1;

30 6-((((3*S*,4*R*)-1-(2-[3-chloro-8-fluoro-6-(methoxy)-4-quinolinyl]ethyl)-3-hydroxy-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer E2;

trans-6-({1-[2-(3-Chloro-6-methoxy-[1,5]naphthyridin-4-yl)-ethyl]-3-hydroxy-piperidin-4-ylamino}-methyl)-4*H*-pyrido[3,2-*b*][1,4]oxazin-3-one trihydrochloride Enantiomer 1;

- trans-1-{2-[3-chloro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol Enantiomer 1;
- trans-1-{2-[3-chloro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol Enantiomer 2;
- 5 2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidinyl}-1-[3-fluoro-6-(methoxy)-4-quinoliny]ethanol dihydrochloride Enantiomer 1;
- N*-(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinamine;
- (3*S*,4*R*)-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinol dihydrochloride Enantiomer 2;
- 10 (3*R*,4*S*)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-[[[1,3]oxathiolo[5,4-*c*]pyridin-6-ylmethyl)amino]-3-piperidinol dihydrochloride Enantiomer E1;
- 15 6-[[[1-{2-[3-chloro-8-fluoro-6-(methoxy)-4-quinoliny]ethyl}-4-piperidinyl]amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one;
- 1-{2-[3-chloro-8-fluoro-6-(methoxy)-4-quinoliny]ethyl}-*N*-(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)-4-piperidinamine;
- (3*S*,4*R*)-1-[2-(3,6-dichloro-4-quinoliny)ethyl]-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol dihydrochloride Enantiomer E2;
- 20 6-[[[(3*S*,4*R*)-1-[2-(3,6-dichloro-4-quinoliny)ethyl]-3-hydroxy-4-piperidinyl]amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer E2;
- (3*S*,4*R*)-1-[2-(3-chloro-6-fluoro-4-quinoliny)ethyl]-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol dihydrochloride Enantiomer E2;
- 25 6-[[[(3*S*,4*R*)-1-[2-(3-chloro-6-fluoro-4-quinoliny)ethyl]-3-hydroxy-4-piperidinyl]amino)methyl]-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer E2;
- 30 *N*-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-4-piperidinyl)-2,3-dihydro[1,4]dioxino[2,3-*c*]pyridine-7-carboxamide dihydrochloride;
- N*-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]oxazine-6-carboxamide;
- N*-(1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-methyl-4-piperidinyl)-3-oxo-3,4-dihydro-2*H*-pyrido[3,2-*b*][1,4]thiazine-6-carboxamide;
- 35

trans-6-(((1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-3-methyl-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E1;

5 *trans*-6-(((1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-3-methyl-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer E1;

trans-6-(((1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-3-methyl-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E2; *trans*-6-(((1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-hydroxy-3-methyl-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]thiazin-3(4*H*)-one dihydrochloride Enantiomer E2;

trans-4-[(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-4-quinolinyl]ethyl}-3-piperidinol hydrochloride Enantiomer E1;

15 *trans*-4-[(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinol dihydrochloride Enantiomer E2;

trans-4-[(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)amino]-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-3-piperidinol dihydrochloride Enantiomer E1;

(3*S*,4*R*)-1-{2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl}-4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-piperidinol dihydrochloride Enantiomer E2;

(3*S*,4*R*)-1-{2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl}-4-[(2,3-dihydro-1,4-benzodioxin-6-ylmethyl)amino]-3-piperidinol dihydrochloride Enantiomer E2;

N-(2,3-dihydro-1-benzofuran-5-ylmethyl)-1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-4-piperidinamine dihydrochloride;

25 6-(((1-{2-[3-fluoro-6-(methoxy)-4-quinolinyl]-2-hydroxyethyl}-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E1;

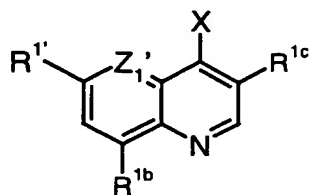
6-(((1-{2-[3-fluoro-6-(methoxy)-4-quinolinyl]-2-hydroxyethyl}-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E2;

6-(((1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]-2-hydroxyethyl}-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E2; 6-(((1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]-2-hydroxyethyl}-4-piperidinyl)amino)methyl)-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E1;

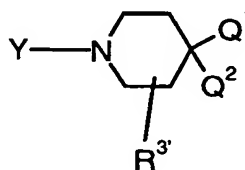
- 6-{{{1-(2-[3-chloro-8-fluoro-6-(methoxy)-4-quinolinyl]-2-hydroxyethyl)-4-piperidiny]amino)methyl}-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E1;
- 5 6-{{{1-(2-[3-chloro-8-fluoro-6-(methoxy)-4-quinolinyl]-2-hydroxyethyl)-4-piperidiny]amino)methyl}-2*H*-pyrido[3,2-*b*][1,4]oxazin-3(4*H*)-one dihydrochloride Enantiomer E2;
- 1-[3-chloro-8-fluoro-6-(methoxy)-4-quinolinyl]-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidiny]ethanol dihydrochloride Enantiomer E1;
- 10 1-[3-chloro-8-fluoro-6-(methoxy)-4-quinolinyl]-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidiny]ethanol dihydrochloride Enantiomer E2;
- 1-[3,8-difluoro-6-(methoxy)-4-quinolinyl]-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidiny]ethanol dihydrochloride Enantiomer E2;
- 1-[3,8-difluoro-6-(methoxy)-4-quinolinyl]-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidiny]ethanol dihydrochloride Enantiomer E1;
- 15 1-[3-chloro-6-(methoxy)-4-quinolinyl]-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidiny]ethanol dihydrochloride Enantiomer E2;
- 1-[3-chloro-6-(methoxy)-4-quinolinyl]-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidiny]ethanol dihydrochloride Enantiomer E1;
- 20 1-[3-chloro-6-(methoxy)-1,5-naphthyridin-4-yl]-2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-1-piperidiny]ethanol dihydrochloride Enantiomer E2;
- 2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-fluoro-1-piperidiny]-1-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethanol dihydrochloride Enantiomer E2;
- 25 2-{4-[(2,3-dihydro[1,4]dioxino[2,3-*c*]pyridin-7-ylmethyl)amino]-3-fluoro-1-piperidiny]-1-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethanol dihydrochloride Enantiomer E1;
- 7-{{{1-(2-[3,8-difluoro-6-(methoxy)-4-quinolinyl]ethyl)-3-fluoro-4-piperidiny]amino)methyl}-1*H*-pyrido[2,3-*b*][1,4]thiazin-2(3*H*)-one dihydrochloride Enantiomer E2;
- 30 1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-*N*-{[8-(methoxy)-2,3-dihydro-1,4-benzodioxin-6-yl]methyl}-4-piperidinamine; and
- 1-{2-[3-fluoro-6-(methoxy)-1,5-naphthyridin-4-yl]ethyl}-*N*-[(7-methyl-2,3-dihydro-1,4-benzodioxin-6-yl)methyl]-4-piperidinamine;
- 35 or a pharmaceutically acceptable salt thereof.

11. A process for preparing compounds of formula (I), and pharmaceutically acceptable derivatives thereof, which process comprises reacting a compound of formula (IV) with a compound of formula (V):

5



(IV)



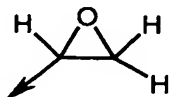
(V)

- 10 wherein $Z1'$, $R1'$, $R1b'$, $R1c'$ and $R3'$ are $Z1$, $R1$, $R1b$, $R1c$ and $R3$ as defined in formula (I) or groups convertible thereto; $Q1$ is $NHR4'$ or a group convertible thereto wherein $R4'$ is $R4$ as defined in formula (I) or groups convertible thereto and $Q2$ is H or $R3'$ or $Q1$ and $Q2$ together form an optionally protected oxo group;

- (i) X is $A'-COW$, Y is H;
 15 (ii) X is $CH=CH_2$, Y is H;
 (iii) X is oxirane, Y is H;
 (iv) one of X and Y is CO_2RY and the other is CH_2CO_2RX ;

in which W is a leaving group, e.g. halo or imidazolyl; R^X and R^Y are (C_{1-4}) alkyl; A' is A as defined in formula (I), or groups convertible thereto; and oxirane is:

20



- and thereafter optionally or as necessary converting $Q1$ and $Q2$ to $NHR4'$;
 converting A' , $Z1'R1'$, $R1b'$, $R1c'$, $R3'$, and $R4'$ to A, $Z1$, $R1$, $R1b$, $R1c$, $R3$, and $R4$;
 converting A-B to other A-B, interconverting $R1$, $R1b$, $R1c$, $R3$, and/or $R4$, and/or
 25 forming a pharmaceutically acceptable derivative thereof.

12. A pharmaceutical composition comprising a compound according to claim 1 and a pharmaceutically acceptable carrier.

13. A method of treating bacterial infections in mammals which comprises
5 administering to a mammal in need thereof an effective amount of a compound according to claim 1.